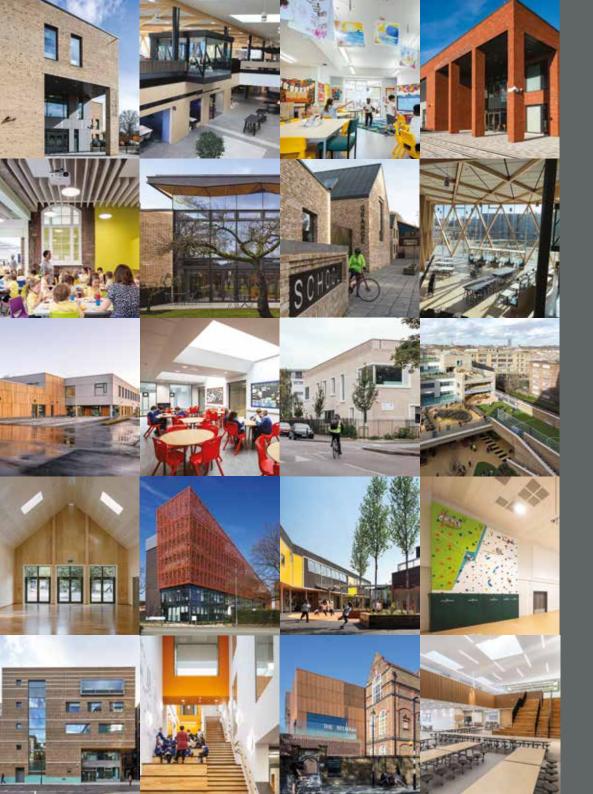
waterman

# Education: Early years, primary and secondary

Creating inspiring and engaging learning environments where pupils and educators thrive.

Our experience spans every type of learning environment, and we're at the forefront of delivering innovative, sustainable and highly flexible education facilities.



### **Contents**

troduction		04
e Belham Primary School		06
arlborough Primary School		08
ellenden Primary School		.10
ange Primary School		. 12
airdardie and Carntyne Primary So	chools	.14
nkwood Primary School		
Mary Calne School Library		.18
ndon Borough of Southwark's SIL	.S3 School	20
bside SEN School		22
ugh Baird College Health Training	and Life Rooms	24
meside College		26

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## Education: Early years, primary and secondary

The education sector is evolving rapidly, so the learning spaces we create today must be responsive to future advances in technology and teaching methods, whilst inspiring and engaging pupils and educators from the outset.

That's why we create learning environments which directly respond to these requirements, building in flexibility to maximise their lifespan. We bring a deep understanding of the challenges inherent in all types of education environment, helping create dynamic, flexible facilities which stand the test of time.

From fully equipped nurseries and SEN establishments to leading edge primary and secondary schools, we understand that early engagement with key stakeholders is vital to delivering solutions which respond directly to their specific needs.

At Waterman, every client and project matters, and our multidiscipline expertise and experience encompass the design, expansion and enhancement of all types of education facility. We've helped deliver everything from challenging refurbishment and retrofit projects to new developments incorporating sustainable, futureproof designs. Our experts help design effective and efficient buildings that fully utilise a space's potential to create stunning learning environments. Our holistic approach to sustainability considers the project's whole lifecycle, climate risk and carbon emissions.

We understand that a building's design and operation have a significant impact on engagement, wellbeing, attainment and productivity. That's why our designs create buildings which enrich the education experience, supporting sound practices and offering optimal learning conditions.

We are tackling the climate emergency head on by ensuring circular economy principles, whole-life carbon cycles, climate resilience and operational carbon emissions are considered and incorporated from the outset. We are at the forefront of design innovation, and we take a 'fabric first' approach, designing out the need for heating and cooling and reducing embodied carbon content wherever possible.

We are a leading multidisciplinary environmental and engineering consultancy, and we're dedicated to creating outstanding communities, networks and built environments which enrich the lives of all. We harness our collective expertise to support awardwinning schemes throughout the UK, Australia and Ireland. With our international reach and local expertise, we partner with private and public sector clients to deliver optimum project designs, thinking differently to deliver innovative, sustainable and economical solutions.



#### **The Belham Primary School**

Location: London

Client: London Borough of Southwark

Architect: Haverstock



Situated in south-east London, this renewed Grade II listed Victorian building was carefully extended and refurbished to provide a striking modern facility, whilst embracing the history of the original building. Consisting of two blocks, a low brick plinth and a taller Cor-ten block, the school's beautiful existing features and delicate building fabric were retained, with a remodelled interior shaping the new two-form entry school.

The existing classrooms were divided into three 30-pupil rooms in addition to new staff areas and a studio space, while corridor expansions maximise the amount of light in each classroom, allowing breakout exhibition spaces for each year group's work to be displayed.

Our experts delivered building services and structural engineering for this stunning project.









#### **Marlborough Primary School**

**Location:** London

Client: The Royal Borough of Kensington & Chelsea

**Architect:** Dixon Jones



Transforming an urban site into a series of terraces, the award-winning Marlborough Primary School is centred around both internal day-lit and external play spaces. Generously resourced, the state-of-the-art facilities include outdoor learning areas, two large halls, a community room, art, design and dance studios, creative media suite and a multi-use games area at roof

With a complex arrangement in plan and section, each year group is separated

the teaching areas surround congregation areas, all of which are linked to a central stair arrangement and joining bridge. Building orientation and connectivity have been carefully considered to ensure the daily life of both teacher and student are

Our team provided the structural engineering design for this exceptional

through the correlation of levels, whilst

Awards: Winner RIBA National Award 2018 & RIBA London



Awards: Winner Civic Trust Award



Awards: Winner - 'School Project of the Award 2018



#### **Bellenden Primary School**

Location: London

**Client:** Bellenden Primary School **Architect:** Cottrel & Vermeulen



Designed by Cottrell & Vermeulen Architecture, this 2,200 sqm new-build primary school in Peckham Rye nestles among surrounding Victorian streets. Featuring a bold U-shaped design with a clever spatial arrangement to make the most of its urban island site, Bellenden Primary School neatly echoes the surrounding terraces.

The subtle design sees the new school visually complement its neighbours, despite doubling the former schools' intake. It consists of three elongated, two-storey blocks and an expansive single-storey block arranged around the larger communal rooms, situated around an enclosed courtyard and playground.

Additional facilities include a combined gym and assembly hall, dining room and paired classrooms.

Our team delivered structural and building services engineering works on the scheme.





#### **Grange Primary School**

**Location:** Southwark

**Client:** London Borough of Southwark Council **Architect:** Maccreanor Lavington Architects

The school, which dates back to the Victorian era, underwent a major refurbishment to create an improved school entrance and increase its capacity for an additional 105 pupil places. Its new structure included tasteful brick cladding that blends in with the surrounding residential properties whilst new characteristic pavilions house modern kitchen, nursery, library, staff offices and schoolhouse facilities, including new satellite classrooms, on the street front.

The new buildings were constructed in a CLT structural frame with pitched roofs

and a double-height Albert McKenzie dining hall provides enhanced dining facilities as well as allowing more space for the school to congregate for assembly.

Working closely with the architect, Maccreanor Lavington, Waterman provided structural engineering and building services design for the scheme, and collaborated with the design team to carefully plan and coordinate the early design stages.





Location: Glasgow

Client: hub West Scotland / Glasgow City Council

**Architect:** Holmes Miller



Both located on the same site in the west end of Glasgow in Scotland, Blairdardie and Carntyne Primary Schools offer state-of-the-art facilities to their 693 pupils.

Blairdardie school provides a flexible learning environment with 16 classrooms, a raised stage, drama room, four-court gym hall and changing room facilities. The school is situated directly adjacent to an existing school building which is scheduled for demolition to make way for sports and community facilities, including a full-size synthetic football pitch.

Carntyne Primary School offers pupils nine classrooms, flexible breakout areas and drama room across a two-storey building. Externally, new facilities include a cycle shelter, outdoor teaching space and a multi-use games area (MUGA).

Our team provided structural, civil and geotechnical engineering services for Stage One and Stage Two of this scheme, including environmental & ecological, flood risk & drainage impact and transport assessments.





14

The JM Architects-designed Linkwood Primary School is a striking modern education facility, replacing the overcrowded original school under the 'South of Elgin, Scotland' masterplan.

With a floor space of 3,780 sqm and accommodating 476 pupils, the school includes ASN provision for up to 12 pupils alongside a nursery catering for 40 pupils. To encourage outdoor learning, an external roof terrace and outdoor classroom includes a sand pit, allotment and multiuse games area (MUGA).

Our team delivered civil, structural and environmental consultancy services for this scheme, working closely with Scottish Water and SEPA to promptly establish a suitable drainage strategy for the site, which is surrounded by a wetland habitat area, featuring aquatic and wetland meadow planting.





**16** 

#### St Mary Calne School Library

Location: Wiltshire

**Client:** St Mary Calne School **Architect:** Woods Bagot

St Mary Calne school's new 660 sqm, twostorey library was designed by architect Woods Bagot in collaboration with the headmistress, staff, librarians, and students to offer a truly unique facility. Taking a central place in the extensive 25-acre grounds of this outstanding Wiltshire independent day and boarding school, the library's ground floor offers a dynamic space for group projects and gives direct access to the adjacent mature apple orchard, whilst the first storey comprises a range of areas for formal focused, individual studying. The library's full height glazed façade enhances views of the neighbouring orchard and, together with the first-floor glazing which extends to the eaves of the striking undulating roof, fills the building with natural light. To maximise the space available for learning and reading, the design minimised the use of conventional book racks placing study booths, display zones and shelving within the interior walls

Our team provided civil and structural designs for the library.





**London Borough of** 

Location: London

**Client:** London Borough of Southwark **Architect:** Tim Ronalds Architects



The new low-carbon, spacious and calming SILS3 PRU in south London accommodates over 112 students aged 11 to 14 years who need to be reintegrated into their mainstream classes.

With a key focus on sustainability from inception, this BREEAM 'Excellent' rated

scheme utilises a pioneering natural ventilation heat recovery system within its classrooms. Using a passive stack effect in conjunction with heat recovery and advanced controls to ensure optimum ventilation rates in each space, the system reduces both energy consumption and carbon emissions. This also allows secure night-time purging during summer months, reducing the overheating risk and allowing our specialists to design-out mechanical cooling across the majority of the scheme.

Our building services and structures specialists worked in close collaboration with Tim Ronalds Architects and the project team to create a fresh and engaging environment that is conducive to learning and presents a low-running-cost solution.





Awards: Winner Civic Trust Awards 2023



#### **Gibside SEN School**

Location: Gateshead
Client: Gateshead Council
Architect: Gateshead Council



Completed during the COVID-19 pandemic, the new Gibside SEN school has the capacity to accommodate 170 pupils providing a life changing start to the education for children with complex learning and medical needs. The singlestorey building includes 21 classrooms, a hydrotherapy pool with hoists, two halls, an internal sheltered courtyard and sensory and soft playrooms. Further facilities include specialist changing facilities and offices for physiotherapy.

The school also features a multi-use games area with accessible gym equipment and separate play areas for key stage 1 and

2 and early years children. An extensive landscaped area outside with fruit trees also provides children with further space to explore and benefit from the fresh air.

Working closely with Wates Group and Gateshead Council, our team provided the building services engineering design for this state-of-the-art scheme. During the early design stages, our engineers developed a tailored solution to suit the individual needs of the students including incorporating specialist audio and visual sensory equipment and hybrid natural ventilation to control draughts and swimming facilities.

The building was designed to minimise energy usage with high thermal efficiency and connection to the Gateshead District Energy scheme which delivers low carbon energy for the buildings heating and hot water.







### Hugh Baird College Health Training and Life Rooms

**Location:** Liverpool **Client:** Hugh Baird College **Architect:** IBI Group



Located in Liverpool's bustling Bootle district, this scheme totally transformed the former St Winifred's Church building, bolstering Hugh Baird College's offering with a new Health and Science facility.

The development provided general and specific health science classrooms as well as a modern simulation ward with full AV and video teaching aids. An NHS Community Centre was also incorporated as an annexe to the building, providing full integration with the health studies at the college.

Waterman's team developed the mechanical and electrical design for the project, working closely with the college and specialist teaching providers to ensure full coordination across all the various disciplines. Ultimately, our design helped deliver a low energy building, centred around the use of the existing brick and high thermal mass structure to provide a passively treated central space, full of light and natural ventilation.



47

#### **Tameside College**

**Location:** Ashton-under-Lyne **Client:** Tameside College **Architect:** IBI Group

This scheme delivered two new buildings at separate Tameside College sites in Ashton-under-Lyne. The development was phased across a single contract to provide two new teaching facilities – the Advanced Learning Centre (ALC) and the Advanced Engineering Centre (AEC), whilst a third phase saw the redevelopment, refurbishment and reorganisation of the College's existing sports hall.

The ALC provided general teaching classrooms, IT and science teaching laboratories and an auditorium theatre

centred around a central atrium hub space, whilst the AEC added further general, IT and science-focused classrooms, along with construction and motor vehicle workshops. Elsewhere, the sports hall refurbishment updated the existing indoor facility, whilst also creating a new modern gym for the college students.

Our team of experts provided the mechanical and electrical design for this exceptional scheme.





